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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,094	10/25/2001	Masafumi Inoue	MAT-8195US	5899

7590

07/17/2003

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EXAMINER

NGUYEN, DONGHAI D

ART UNIT

PAPER NUMBER

3729

DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/037,094

Applicant(s)

INOUE ET AL. *CS*

Examiner

Donghai D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,564,183 to Satou et al.

Regarding to claim 1, Satou et al. disclose a component mounting system configured by connecting a plurality of devices, the component mounting system comprising: a printer (4) for printing solder onto an electrode formed on the board (32); a first inspection unit (5) for detecting a position of the printed solder (31) and outputting a solder position detection result (21); a component mounting unit (2) for picking up the component from a component feeder carriage with a mounting head, and placing the component on the board; a second inspection unit (8) for detecting a position of the component placed and outputting a component position detection result (23); a soldering unit (3) for soldering the component onto the board by heating and melting the solder; and a main controller (28) for updating at least one of a control parameter for controlling an operation of the printer and a control parameter for controlling an operation of the component mounting unit based on at least one of the solder position detection result and the component position detection result (Fig. 1).

Regarding claim 2, Satou et al. disclose a third inspection unit (11) for inspecting a mounting condition by recognizing the component after the soldering, and outputting a mounting inspection result (25).

Regarding claim 3, Satou et al. disclose a component mounting system configured by connecting a plurality of devices for manufacturing a mounted board by placing and soldering a component onto the board, the component mounting system comprising: printer (4); a first inspection unit (5) for detecting a position and outputting a solder position detection result (21); a component mounting unit (2); a second inspection unit (8) and outputting a component position detection result (23); a soldering unit (3); a third inspection unit (11) and outputting a mounting inspection result (25); and abnormality evaluation means (22, 24, 26, 27, and 28) for determining the presence of any abnormal operation in at least one of the printer, the component mounting unit, and the soldering unit based on at least one of the solder position detection result, the component position detection result, and the mounting inspection result (Fig. 1).

Regarding claim 4, Satou et al. disclose a component (7) mounting method comprising: a printing step (Col. 6, lines 44-47) using a printer (4); a solder position detection step (Col. 6, lines 47-50) using a first inspection unit (5); a placement step (Col. 6, lines 50-52) using a mounting head (7) in a component mounting unit (2); a component position detection step (Col. 6, lines 52-54) using a second inspection unit (8); and a soldering step (Col. 6, line 56) using a soldering unit (3); wherein at least one of a control parameter (22) for controlling an operation of the printer and a control parameter (24) for controlling an operation of the component mounting

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unit is updated based on at least one of the solder position detection result (21) and the component position detection result (23) while executing the steps.

Regarding claim 5, Satou et al. disclose a mounting inspection step (Col. 6, lines 58-60) using a third inspection unit (11); wherein a control parameter (26) for controlling an operation of the soldering unit is updated based on the mounting inspection result(25).

Regarding claim 6, Satou et al. disclose a component mounting method comprising: a printing step (Col. 6, lines 44-47) using a printer (4); a solder position detection step (Col. 6, lines 47-50) using a first inspection unit (5); a placement step (Col. 6, lines 50-52) using a mounting head (7) in a component mounting unit (2); a component position detection step (Col. 6, lines 52-54) using a second inspection unit (8); and a soldering step (Col. 6, line 56) using a soldering unit (3); and a mounting inspection step (Col. 6, lines 58-60) using a third inspection unit (11); wherein the presence of any abnormal operation in at least one of the printer, the component mounting unit, and the soldering unit is determined based on at least one of the solder position detection result, the component position detection result, and the mounting inspection result while executing the steps (Col. 8, lines 23-39).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghai D. Nguyen whose telephone number is (703) 305-7859. The examiner can normally be reached on Monday-Friday (9:00-6:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (703) 308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7307 for regular communications and (703) 305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

DN
July 11, 2003

A handwritten signature in dark ink, appearing to read 'Peter D. Vo', is written over a horizontal line.

PETER VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700